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**OF THE HEBREW UNIVERSITY OF JERUSALEM**  
[IL/IL]; Hi Tech Park, Edmond Safra Campus, Givat Ram,  
91390 Jerusalem (IL). **BIOLAB LTD.** [IL/IL]; P.O.Box  
34038, 91340 Jerusalem (IL).

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**(72) Inventors; and**

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(75) Inventors/Applicants (*for US only*): BARENHOLZ, Yechezkel [IL/IL]; 18 Nave Shaanan Street, 93707 Jerusalem (IL). JOSEPH, Aviva [IL/IL]; 26 Yitzhak Tunik Street, Pizgat Zeev, 97795 Jerusalem (IL). KEDAR, Eliezer [IL/IL]; 3 Eli Cohen Street, 92347 Jerusalem (IL).

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(74) Agent: REINHOLD COHN AND PARTNERS; P.O.Box 4060, 61040 Tel Aviv (IL)

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(74) Agent: REINHOLD COHN AND PARTNERS; P.O.Box 4060, 61040 Tel Aviv (IL).

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(54) Title: SPHINGOID POLYALKYLAMINE CONJUGATES FOR VACCINATION

**A**

**B**

**(57) Abstract:** The present invention concerns the use of a sphingoid-polyalkylamine conjugate as a capturing agent of biologically active molecules, such as antigens. In a particular embodiment, the spinogid-polyalkylamines are used for the preparation of pharmaceutical composition for modulating the immune response of a subject. Other aspects of the invention concern methods for modulating the immune response of a subject by the use of the conjugate, complexes comprising, the sphingoid-polyalkylamine conjugate in combination with a biologically active molecule capable of modulating an immune response of a subject, compositions comprising the conjugate as well as kits making use of said conjugate. A preferred conjugate according to the invention is N palmitoyl D-erythro sphingosyl 1 carbamoyl spermine.

Chemical structures C and D illustrate the synthesis of a cyclic diamine. Structure C shows a linear diamine with two amine groups (H<sub>2</sub>N-CH<sub>2</sub>-CH<sub>2</sub>-NH<sub>2</sub>) reacting with a diisocyanate (NCO-C(=O)-O-R'-C(=O)-NCO) to form a cyclic diamine (Structure D). The resulting cyclic diamine has a central carbonyl group (C=O) bonded to two isocyanatoethyl groups (-NCO-CH<sub>2</sub>-CH<sub>2</sub>-), which are further linked to a central nitrogen atom.

WO 2004/110496 A1



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